Mr. Matt Rota Gulf Restoration Network P.O. Box 2245 New Orleans, Louisiana 70176

## Dear Mr. Rota:

The Louisiana Department of Environmental Quality (LDEQ) acknowledges receipt of your comments concerning the draft TMDL for Bayou Pierre (Subsegment 100606). Our responses are provided below, following the format of your comment letter. Your comment reminds us of the need to thoroughly explain our protocols in developing TMDLs. We will incorporate more discussion of these protocols in the text of our modeling technical procedures document.

## Point sources should be considered more in order to protect the entire watershed.

Louisiana develops non-conservative pollutant (BOD) TMDLs which apply to all or a portion of a watershed. The model, which is the basis of that TMDL, is typically developed for the main stem of the waterbodies we model, not for all waters in the entire watershed of that waterbody. From the point of entry, non-conservative constituents begin to degrade, and over a period of time and distance, they break down, are consumed by the flora and fauna in the water, and/or dissipate into the atmosphere. Residual impacts of these dischargers remain in the sediments until flushed downstream by rain events. While some perennial tributaries may be modeled on occasion, normal procedure is to sample the tributary near the lower end before it enters the main stem water body, and enter the loading in the model as a wasteload or headwater. This sample captures any residual impact in the water column from upstream dischargers along with nonpoint source impacts and is entered into the TMDL as part of the nonpoint source class of loading. Residual impacts from the sediments are captured during model calibration. The resulting TMDL includes all residual and direct impacts to the named water body being modeled from its surrounding watershed. Since the established conditions for developing our TMDLs are hot, dry summer conditions (because the Clean Water Act requires that TMDLs be developed for critical conditions), intermittent and non-flowing streams are commonly encountered. These are not included in the model because at critical conditions they are not contributing to the pollutant loading.

Considerable effort is made to determine whether a remote point source should be incorporated directly into a model, modeled separately, or determined to be too small and/or too far away to have a significant impact on a modeled waterbody. The practice of taking a sample to measure

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the load at the downstream end of a tributary insures that any residual impact is captured and addressed in the overall TMDL. Where major dischargers are concerned, wasteload allocation modeling is conducted to determine whether the impact reaches the main stem and whether load reductions are required.

In reporting point sources in our TMDLs, we will continue to list the remote sources that were not modeled, with allocations based upon current permit limitations. Existing point source dischargers are regulated through the permit system, with effluent limitations derived from state or area permitting policies, many already treating at advanced levels. We will, wherever practicable, model major dischargers in the watershed to obtain a wasteload allocation, even if remote to the named waterbody for which the TMDL is being developed.

LDEQ appreciates your comments and hopes that this helps to clarify our protocol for evaluating point sources within a modeled watershed. If you have further questions, please contact me.

Sincerely,

Emelise Cormier Senior Environmental Scientist Water Quality Assessment Division

Cc: Golam Mustafa, U.S. EPA Alicia Walsh, LDEQ